

Study of Tax Systems Modernization Benefits

*Internal Revenue
Service*



*Department of
the Treasury*



*Office of Management
and Budget*



February 1992

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**Joint
Department of the Treasury,
Internal Revenue Service, and
Office of Management and Budget**

**Study of Tax Systems
Modernization
Benefits**

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STUDY OF TAX SYSTEMS MODERNIZATION BENEFITS

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Study of Tax Systems Modernization Benefits

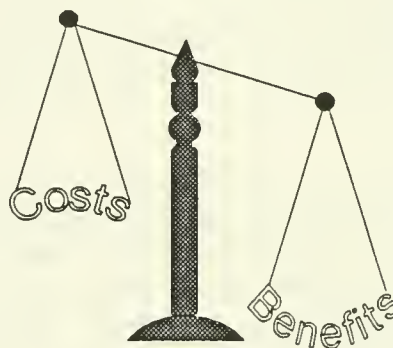
Executive Summary

The detailed plan to modernize the current tax system, known as Tax Systems Modernization (TSM) is a comprehensive application of current and emerging technology to create a new information and data processing system necessary to administer the federal tax laws in the future. TSM will be achieved through the implementation and integration of a series of inter-related projects.

Completion of the IRS' Tax Systems Modernization plan will require the significant investment of approximately \$8 billion over the next decade. This commands the Service to provide in the budget process, not only cost information on TSM initiatives, but also realistically documented benefits/savings from those initiatives.

The purpose of this joint OMB-Treasury-IRS undertaking was to reach a common understanding of how to measure and value benefits accruing from investments in information technology in IRS, especially in Tax Systems Modernization projects. This study forms a generic framework, defined by broad principles. The methodology formulated was then generally applied to two case studies: Electronic Filing System (EFS) and Electronic Deposit Processing System (EDPS); to validate its applicability.

The following study offers standard guidelines for the Internal Revenue Service for documenting benefits and savings from TSM projects. These concepts can become the foundation for more effective project planning and budgeting in this critical area.



Study of Tax Systems Modernization Benefits

Background to the Joint Benefits Study

The Tax Systems Modernization (TSM) Joint Benefits Study resulted from concerns raised by Office of Management and Budget (OMB) and Treasury officials during discussions of the FY 1992 budget. Treasury and OMB policy-level officials were troubled that some investments in IRS' TSM Initiatives were not supported in advance and during the life cycle of projects by a thorough benefits analysis. Identifying the benefits of information systems projects is crucial to making appropriate choices such as the scope of a project, continuance of a project and budget request rationale to IRS executives, Treasury, OMB and the public. This study was undertaken to develop a standardized methodology for measuring anticipated productivity savings and cost reductions from TSM projects, for use in future budget submissions.

Treasury and OMB executives proposed that OMB, Treasury, and IRS join in a task force to develop universal benefits/savings criteria to be applied to all IRS automation projects. The task force would evaluate two or more TSM projects to identify general benefits indicators. From the beginning, it was intended that the "joint benefits study" was to be substantially more than an academic exercise. It was anticipated that the study would yield agreed upon methodologies for identifying, categorizing and quantifying benefits from automation investments that would be meaningful in future budget formulation and execution.

Related Work Products

At the same time that parameters for the benefits study were being discussed, the IRS was also pursuing several other interrelated efforts that measured or valued benefits from TSM. Throughout the last year, IRS has been developing a quality measurement program for ISD projects. In October, 1991 IRS published a guide entitled the "Information Systems Development (ISD) Quality Measures Handbook," which laid out a methodology for measuring the quality of work processes and resulting products and services. The methodology discussed in that publication will assist IRS managers to formulate benefit measures for use in conjunction with this framework.

In addition, ISD began developing and implementing a TSM Performance Tracking System. This tracking system includes a project-by-project schedule of major developmental milestones, estimated costs, *and benefits*. It is intended to offer both IRS, Treasury and OMB the capability to

monitor the progress of TSM projects in meeting various developmental milestones and achieving estimated benefits/savings. Benefit measurement for this system resulted from joint efforts between ISD and functional groups within IRS such as Returns Processing and Taxpayer Services to formulate a "business case" of life cycle costs and benefits for each project. These "business cases" have somewhat overtaken the cost/benefit analysis required by OMB Circular No. A-11, Section 43. These analyses are often called "43C's" and now can be taken from the "business cases." It was anticipated that the results of this Study would further help the Service in refining its benefits estimation done in conjunction with the above related work projects.

Joint Benefits Study Approach

OMB, Treasury, and IRS executives met on April 3, 1991, at Main Treasury, to reach a consensus on the nature and scope of the Joint Benefits Study. Earlier staff discussions had not led to agreement on which projects to target in the study nor the particular analytical approach to use. Proposals were submitted to review one of several mature projects, e.g., Automated Underreporter (AUR), Corporate Files On-Line (CFOL), Electronic Filing System (EFS), and Service Center Support Systems (SCSS). However, many viewed a single project study as too limited. They reasoned that a study limited to nearly completed projects would have limited utility for those many TSM initiatives in the early stages of development.

In responding to this concern, the group identified two TSM projects, the Electronic Filing System (EFS) and Cash Management Systems (CMS), as study targets. EFS, a mature project already in operation, would provide insight into benefits criteria to be expected of projects at the end of their developmental cycle. CMS,¹ an embryonic project, would provide insight into benefits criteria expected of projects in the earliest stages of development.

The study team's preliminary efforts were directed at three areas. First, the team attempted to define the meaning of a "benefit." Second, the team sought to develop a framework or "benefit model" to be used in measuring project benefits. Lastly, team members met with EFS and CMS project and program managers to gain an understanding of these particular projects in order to begin case studies of projected benefits using the model framework.

¹ The Cash Management Systems (CMS) project involves the redesign and modernization of the IRS remittance processing system and sub-systems. Due to the uncertain future of a number of CMS projects, the study team selected Electronic Deposit Processing (EDPS), a viable CMS sub-system, for analysis. EDPS includes that part of CMS covering receipt and processing of electronic payments through commercial networks. The development of benefits methodology for the EDPS prototype, called TAXLINK, consequently became the focus of the team's efforts.

Description of the Benefits Model

The Benefit Model developed by the study team is a framework for determining the economic implications to the IRS, other Federal agencies, the U.S. Treasury, and the taxpayer, of operational changes produced as the result of an individual IRS information systems development project. The framework is consistent with the expressed customer-driven objectives of the individual systems. In the most general terms, the model framework consists of the following three processes:

- *Identification of operational changes* (for example, productivity increases) resulting from the introduction of the new system;
- *Linkage of operational changes to "quality" measures* (objectives and sub-objectives) of TSM; and
- *Development of "benefit" measures* using existing management information systems reports for expressing the economic impact of these operational changes.

Recognizing that although a complete accounting of benefits would extend to non-quantifiable benefits, they fall outside the scope of this study.

Benefits Model Starting Point--Identifying Operational Changes

The first step in approaching a benefits analysis for any project is to ask why the project is being undertaken. Either the project is aimed at modernizing customer service or at achieving a specific IRS efficiency goal or government financial goal. For example, a project might be pursued because customers, used to high levels of service in their dealings with other financial institutions, demand a similar level of service from IRS, or it may be pursued to decrease IRS processing costs or make work processes more efficient and effective. Regardless of the initial motivation, most projects will have multiple impacts to current operations, which need to be measured.

If a project has been undertaken because there is the expectation that consumers will demand the use of a particular technology option or a particular level of service which can only be provided via a systems project, then a general benefit or goal has been defined, but a broader analysis will be crucial to determine whether the project has any additional hidden benefits other than the one overriding purpose noted when the project was proposed. Impacts must be mapped out, for it is possible that there are a host of positive, as well as negative, benefits which were not originally envisioned.

However, when a project has been proposed with several specific goals of cutting costs or making work easier or more effective, then the initial benefits analysis work has a slightly different starting point. In this case, the goals should be developed and articulated in as detailed a fashion as possible to be certain that the initial project concepts can be executed in the IRS work environment. Initial gross quantification of the impact of the goals should be attempted along with a detailed environmental scan to determine all impacts on the work processes, and any possible negative implications and costs.

Once the impact of the new system on current processes has been identified in general terms, then "quality" measures should be applied. These measures will reinforce the goal of the project toward achieving the objectives of TSM and the IRS.

Benefits Model Linkage to the IRS Quality Measures Program

Instead of attempting to design yet another competing set of measures for capturing project benefits, the Joint Benefit Study Group adopted ISD's Tax Systems Modernization Quality Measures Program methodology described in the IRS document entitled "TSM Quality Measures Program," dated March 1991. This Quality Measures document describes organizationally agreed upon TSM objectives and related sub-objectives already used in conjunction with the IRS Design Master Plan (DMP) and reporting requirements of the budget process and provides a general guide to projects for developing benefits measures.

In order to assist systems development project managers in reducing risks and making more effective and timely business decisions, the quality measurement program details the "how to" of monitoring projects and quantifying the quality of TSM products and services. This structured program (described in detail in the "ISD Quality Measures Handbook"²) requires IRS project managers along with affected functions to identify quantifiable project goals early in the project development process, based on the five major

FIVE TSM OBJECTIVES:

- ◆ Reduce Taxpayer Burden
 - ◆ Improve Products and Services
 - ◆ Improve Systems Efficiency
 - ◆ Increase Voluntary Compliance
 - ◆ Reduce Cost of Tax Administration
-

²The ISD Quality Measures Handbook, is a new guide recently completed (dated October 1991) to assist project managers in integrating quality into the system development process. It is designed to help IRS modernization projects develop measures, which will give vital information about the quality of work processes and the resulting products or services. This new Handbook has slightly different TSM sub-objectives, than those referred to in this report, which come from the early March 1991 document.

objectives of TSM. Each of the five objectives has a number of related sub-objectives. (For a complete chart of the five objectives and related sub-objectives see Appendix 1.) The above objectives continue to be refined and the draft Strategic Business Plan includes modifications that minimizes overlap between objectives.

The TSM project manager working with all affected parties within the Service (including the Taxpayer Ombudsman), is required to: (1) determine which TSM objectives (and sub-objectives) apply to their project; (2) establish numerical target *goals* for each objective and sub-objective; and (3) select a set of performance *indicators* to monitor progress toward achieving the stated goal as the system moves through prototype to pilot and into full operation.

For example, if a project is assumed to "improve systems efficiency" by "reducing the amount of rework" (a TSM objective and sub-objective), the target goal could be the reduction of errors per return by 25%. Project offices would then insure the establishment of a management information systems "errors report" to track the project's progress toward achieving the target goal. In general, it is normally expected that required data collection and reporting mechanisms are already in place for these measures at project inception or shortly thereafter, so that it is possible to establish needed baselines with which to assess program accomplishments.

The Benefits Model requires the appropriate "maps" or cross-references between the project benefits and TSM objectives, and the establishment of goals for the project's quality measures. This is becoming an all important effort by all projects. In the case of the EFS, which was developed prior to the development of ISD's quality measures methodology, it was necessary for the Joint Benefits study team to retrofit this superstructure onto the EFS for purposes of analysis. (ISD is currently engaged in this same task of retro-fitting quality measures, at a more detailed level, as part of the development of the EFS project evaluation plan).

As a methodology, however, front-ending quality measures early in a project's life cycle, eliminates redundancy and ensures that benefit measures are consistent with accepted TSM goals, objectives, and accomplishments. The quality measures: (1) quickly identifies areas where the economic benefits are expected; (2) zeroes in on the data necessary to compute them; and (3) provides a means of tracking these benefits over the system's life cycle.

Benefit Model Endpoint--Economic Benefit Measures

The study team agreed that all economic benefits should be linked to core TSM objectives/sub-objectives to have utility. Quality measures supported by quantifiable data would reinforce program accomplishments. They would function to evaluate whether or not TSM program accomplishments were helping to achieve TSM objectives and sub-objectives. Once quality measures have been established for a project, they are used both to evaluate progress toward stated project goals, and to compute project benefits (i.e., economic benefits).

Once the impacts of operational changes are identified and framed as quality measures, they must be analyzed to determine to what extent they can be quantified using established management information systems. In some cases, some additional cost research will have to be conducted and formulas developed. Of necessity, assumptions will have to be made about future steps in the project, acceptance by customers, and timing. Values will in some cases have to be imputed or estimated, and surrogates located. It is possible that benefits for which no quantification has before been attempted, or resolved, will be encountered. Such quantification may require surveys, literature search and creative analysis of comparable benefits.

As opposed to the operational change measures, *benefit figures may not be directly available from existing data*, but will represent derived estimates, based on a combination of operational data and management judgement of the impact of TSM changes on work type, flow, product, etc.

The study team has grouped all benefits into the following categories:

- Cost Savings (\$) (FTEs)
- Cost Avoidance \$(FTEs)
- Interest Savings (\$)
- Increased Revenue (\$)
- Reduced Taxpayer Burden
 - Burden Hours
 - Burden Cost (\$)

Again, the study team chose not to invent new benefit categories and definitions, but endorsed benefit categories already in use. The above benefit categories are identical to those used for TSM tracking purposes in the Information Systems Policy Board (ISPB) Quarterly Report and to those to be supplied to OMB, on all TSM Projects from the new Performance Tracking System. It is anticipated that this categorization of benefits will become the standard employed for TSM tracking and the Budget.

General Rules on the Computations of Economic Benefits:

The primary procedures and conventions governing the computations of benefits have been agreed to and are outlined as follows:

- Benefits *will be distributed by fiscal year* and reflect dependencies on the timing of other key events, i.e., changes in schedule caused by delays or reductions in funding, contracting delays, changes in project assumptions, or changes in schedules of related TSM projects.
- Benefits *will be broken out by specific organizational component* and other categories (e.g., service center audits, service center file storage, mail handling, taxpayer burden

reduction due to reduced notice errors, etc.). Thus, benefit computation must be "labeled" to identify the precise nature and functional area of the benefit.

- Benefits will *not include opportunity benefits*, which are based on reapplication of cost savings. The fungibility of budget dollars makes it impossible to identify which of possibly multiple budget related benefits (of possibly different magnitudes) are the result of a specific cost savings reinvestment.
- Benefits will be based on *comparisons with the current system*, using the latest available quality measures, in conjunction with common assumptions concerning future workload.

Benefit Category: Cost savings -- or cost reductions refers to reductions to the Service's budget caused by reducing the costs of producing work units that are currently being produced.

- Include recurring and non-recurring savings, expressed in *constant dollars* and, where appropriate, in full-time equivalents (FTEs). Increased functionality of a system that lowers the overall productivity should be shown as a part of the cost of that system.
- Include consideration of direct labor savings from increased equipment production rates; changes in average salary because of increased/decreased skill levels; and reduced or increased staffing needs because of activities added, modified, or eliminated.
- Include indirect savings or offsets from changes in training, span of control, and other administrative labor costs directly related to the system change under consideration.
- Consider non-labor cost savings resulting from processing changes, including decreased equipment maintenance costs, reduced rent and telecommunication charges, decreased postage costs, etc.
- Include savings in all proratable support costs in the same ratio to direct program savings as exists in the current system.
- A comparison of the cost of operating the new and old systems should exclude the costs of the new system that are paid for by the TSM initiative. Excluding these costs shows the total savings to IRS base operations from the investment in the new system. For example, an old system may require 100 clerks and the new system requires 75 clerks and 5 computer staff. If the 5 computer staff are paid for by the TSM initiative, then the costs savings are the 25 fewer clerks.

Benefit Category: Cost avoidance -- refers to the reduction or prevention of a budget increase that would otherwise be necessary.

- Include costs avoided for activities "foregone," meaning new costs which have been identified as necessary to meet anticipated future workload requirements. For the purposes of TSM, cost avoidance is only calculated on the unavoidable costs of processing new tax returns.

Benefit Category: Interest savings --

- Include savings resulting from quicker deposit of tax receipts and savings from late payments to taxpayers (beyond the statutory interest-free period). Note: interest savings should *not* be offset, by any interest cost to the Government from faster refunds to the taxpayers. It is already assumed that the taxpayer is considered to have a right to his/her money as soon as possible.

Benefit Category: Increased revenue --

- Increase revenue benefits that cannot be captured as increased productivity should be shown as a increased revenue benefit. For example, such things as shifts in enforcement cycles, accelerated enforcement actions, expanded information reporting and improved account access could increase revenue but not decrease the cost of conducting those actions (a cost savings benefit).

Increased revenue benefits only include system related benefits that are not the result of improved productivity. Systems enhancements which result in productivity improvement will yield cost savings and no increased revenue. *This practice separates the automation investment decision from the enforcement enhancement decision.* An automation investment in Centralized Inventory Distribution Sites (CIDS), for example, that has higher cost savings than an investment in Examinations, all other benefits being equal, should be given higher priority. The CIDS cost savings can be reinvested in enhanced enforcement efforts just as the Examinations cost savings can be.

- Be restricted to dollars collected. Where such data is not available, extrapolation of dollars collected will be computed based upon agreed methodology.

Benefit Category: Reduced taxpayer burden --

- Reflect actual stated TSM goals and objectives as they affect the taxpayer, and must be derived from quality measure data (e.g., from measured reductions in error notices, eliminated forms or procedures, improved telephone accuracy, etc.).
- Generally be expressed in hours based on the actual number of research and preparation hours saved by taxpayers due to changes in IRS forms, operations, and procedures. These estimates will not be converted to dollars, based on wage rate imputations.
- Be computed in dollars whenever an individual taxpayer or business realizes an out-of-pocket dollar savings as the result of a change (e.g., reduction in tax preparation fees).
- Incorporate information, as it becomes available, on burden categories impacted by modernization. Burden reductions should be scored against an agreed upon universe of taxpayer burden. The Service is currently studying how to measure the full range of taxpayer burden, beyond the burden already measured for the Paperwork Reduction Act. Estimates of taxpayer burden reduction should eventually be consistent with the results of this analysis.

Economic Benefits of System Changes:

The study group recognizes that some TSM benefits accrue from more than one systems and that allocating benefits among systems can be extremely difficult. Multiple projects should not be able to count the same benefits. Such double counting economic benefits may appear advantageous for project offices seeking budget funding, but are actually detrimental when budget reductions are taken for achieved cost savings. The study group has determined that these "system" benefits:

- Cannot be shifted--partially or entirely--from one project to another at a subsequent time unless one system is replacing the other's functionality (possibly over an extended time period) upon which that benefit depends.
- Must be attributed to a single system, generally based on precedence of implementation, and less frequently on management judgement regarding the relative importance of each project or priority to the overall success of TSM. In the case of precedence, successor systems would only be credited with marginal benefits over

and above the aggregate level which their predecessors systems could achieve in their absence. In the case of management decisions, lower priority systems would only be credited with marginal benefits over and above the aggregate level which their higher priority systems could achieve in their absence.

- Must be credited to all of the systems, considered as a single entity, in cases where the systems are linked inextricably and where no benefit will accrue in the absence of any one of them. In this instance, none of the systems, considered individually, will be credited with the benefit.

It is the task of IRS project managers and the project's internal customers, using the above guidelines, to identify project benefits, and to document the benefit computations.

Benefits Estimation is an Iterative Process

Benefits analysis is by nature an iterative process. Much is unknown about new information systems projects, the roadblocks they may encounter, and their ultimate impact. To ensure the continued appropriateness of a project, it is important to re-check and re-validate its position and environment during the development cycle of the system, whenever there are major changes in project goals, assumptions, or objectives. This will allow the project team to modify goals for each project objective and sub-objective as the project moves through prototype to pilot, etc. To properly conduct this environmental scan, the project team will need to take a wider view than it might in the course of day-to-day development work.

In addition, re-computations should be made periodically--at least once a year, prior to the beginning of each budget cycle--to capture changes in quality measures or project status (e.g., when the project moves from prototype to pilot, or when the pilot is expanded). These computations should continue each year after project roll-out through the system's post-implementation review.

Through each iteration of the process, a review must be made of the goals for the project and the quantification of benefits. It is during this feedback loop that a new statement or calculation of expected benefits should take place. The level of cost effectiveness of a project, or its return on investment, will be refined through each such iteration.

This feedback loop is crucial to policy and financial officials. The project, after all, is not funded in a vacuum. To the policy maker, it is being pursued along with many other competing projects. Consequently, an evaluation of need, scope and prioritization must take place after each iteration. Doing so insures that all those involved understand the nature and context of the project and the level of resources required. It therefore may be appropriate for such scans to be conducted in tandem with operational personnel, financial management staff, and individuals from the planning group who are experienced in environmental scan techniques.

The following sections provide two case studies showing how this model can be employed for both operational and developmental systems. Case study one deals with Electronic Filing System (EFS). Case study two deals with Electronic Deposit Processing System (EDPS). These case studies are intended to illustrate the issues other projects should consider. Project managers are not expected to replicate the specific tables used for these cases.

CASE STUDY 1: Electronic Filing System (EFS)

CASE STUDY 1: Electronic Filing System (EFS) - Background to EFS

Electronic Tax Filing Logo



Beginning in the 1960's, the Service looked to automate the internal processing of tax returns; until that time tax returns were processed entirely by hand. Processing the millions of paper documents and returns received each year is still a time-consuming, labor intensive and expensive operation. Because the process includes so much data entry, it is prone to error. From the time a return is received in an IRS service center, it may take several weeks to complete the manual paper processing and data entry.

Several years ago IRS began to look for alternatives to the current labor intensive process of handling paper returns. As part of this research, the IRS determined that many return preparers use computers to prepare their clients' tax returns. Of the 47 million individual income tax returns prepared by returns preparers in 1985, almost one-third, or 15 million, were prepared by computer.

After further research into procedural, technical and legal issues, IRS decided to conduct a pilot test of electronic filing of individual tax returns. The first test was of 1985 1040EZ, 1040A and simple 1040 refund returns filed in 1986 in several test sites. Based on the success of the pilot test, IRS expanded the project for the 1987 filing season to include several other sites and essentially tripled the number of electronic returns. The program expanded gradually, until its full implementation with the 1990 filing season. In that year, electronic filing of individual returns was available in all 50 states. In 1991, approximately 7.6 million returns were filed electronically. Electronic filing has been the most highly visible and successful TSM project to-date, one to which the Commissioner has committed the Service to increasing the number of electronically filed returns to 25 million by FY 1995.

EFS Operational Changes and Benefits

EFS began as a project before there was a formalized methodology within IRS for identifying quality measures to evaluate efficiency and effectiveness. This has hindered the project office in defining and quantifying its baseline operational cost versus the new EFS. The three processes of identifying the operational changes and linking them to quality measures and using management information reports to measure the economic impact of the operational changes are now having to be retro-fitted in order to show tangible project benefits.

The EFS was designed to automate the receiving, sorting, blocking, numbering, coding and editing, and transcribing of individual tax returns filed electronically. From the Service's standpoint, electronic filing provides a means of processing tax returns that is faster, more accurate and less expensive.

Electronic filing reduces the number of paper returns filed and all the costs associated with their processing and storage. EFS eliminates all the "front-end" input processing done by the Service Centers upon receipt of a paper return. This includes all the manual manipulations of sorting, blocking, numbering, coding and editing, and transcribing. Consequently, fewer electronic filed returns are rejected to the Service's Error Resolution System (ERS). In addition, the electronic information requires less storage and allows easier data retrieval.

The Service also achieves significant savings from the higher quality of electronic returns versus paper filed returns. The error rate on electronically filed returns is much lower than the error rate on paper returns. Paper returns have traditionally had error rates between 16-22 percent versus 3-4 percent for electronically filed returns. These errors, are primarily math or computational errors for which EFS virtually eliminates through the automated software checks. This allows the Service to reduce labor costs in notice preparation and review, adjustments and compliance activities.

While the above describes the internal IRS operational changes and benefits from the system, the tax paying population has realized other benefits. Despite the fact that electronic filing does not really simplify the filing process for an individual taxpayer, it has become very appealing because of the more quickly issued refunds, as well as the calming reassurance of immediate verification that IRS received their returns timely. This has created a new market for professional tax preparers, which before EFS, never existed. Namely, taxpayers, who will pay tax preparer fees to electronically file returns and receive advances on their refunds. These issues have created external pressures to keep the system operational and even to expand it.

However, IRS has not yet fully realized all the benefits of EFS. The Service can not exploit the EFS returns information more than the traditionally paper filed return, which are still laboriously key entered. In addition, significant savings can not be achieved with Electronic Filing as long as there is required a separate paper signature document (a jurat) for electronically filed returns. A goal of the Service is to eliminate this jurat requirement. Legislation has been drafted to substitute digitized signatures instead of paper signature documents. Should this be accepted, it would go a long way to allowing the Service to achieve all the efficiencies of a truly paperless processing system.

EFS Linkage to ISD Quality Program

As mentioned above, the Electronic Filing System was designed to streamline the internal labor intensive processing of tax returns by the Service. The operational changes discussed directly relate to the objectives and sub-objectives of TSM.

EFS directly relates to the TSM objective of Reduced Taxpayer Burden by providing faster refunds and improving taxpayer service by decreasing the total number of notices sent, and providing faster data retrieval. The Joint Benefit Study group has suggested several types of processes which could measure quality. Providing faster refunds has already become a very important quality measure. It is made from the comparison of the average days to issue a refund through electronically-filed returns versus paper-filed returns. In fact, EFS has set a goal of five days for issuing refunds for electronically filed returns. Quality measures identified for improving taxpayer service could include the number of notices sent prior to the implementation of EFS versus those sent with EFS operational. Additionally, the project office could compare time spent requesting and pulling paper tax returns at the service centers for inquiries, prior to EFS and post-EFS.

To validate that EFS is indeed accomplishing the above mentioned TSM sub-objectives, the project office must set specific goals and report on their accomplishment thorough established management information systems report. The Management Information System for Top Level Executives (MISTLE) provides various statistical data on the filing season, which could be used to validate most of the quality measures. Service Center processing cycle data also could be used to document that refunds for electronically filed returns are issued sooner (two to three weeks) compared to the normal six weeks for paper filed returns. Under the current system, the only way to accurately gauge refund activity is to request a master file extract at the end of the filing system. Hopefully, as other modernization efforts are completed, this will become more of a real-time, on-line process.

EFS also improves systems efficiency, the quality of products and services and reduces the costs of tax administration, three other TSM objectives. EFS reduces rework, manual activities, and the amount of paper and storage space needed. The system efficiency under Electronic Filing is two fold: there are fewer paper returns passing through all processes and some processes have been automated. Electronic filing is the first step in achieving the overall goal of having completely paperless processing. Reduced manual activities, including rework could be measured from the Error Resolution System (ERS) Reports, Cost per Thousand Reports, and data from the Service Centers' Program Analysis System (PAS). MISTLE and the Service Centers' PAS could be used to track the inventory of adjustments, unpostables, entity mismatches, Blocks Out of Balance, Rejects, and Unidentified Remittances, as well as any unpostables by identifying the sources or errors. Reduced storage space includes savings in file space at the service centers and federal record center costs. These savings are not fully realized at the present time, due to the fact

that an electronically filed return is still not a paper-free return. A signature document, Forms W-2 and other selected documents are still required to be sent in support of the electronically filed return.

The narrative above of the EFS case study is graphically expressed in the schematic tables on the next few pages.

TSM JOINT BENEFIT STUDY - EFS

OBJECTIVES FOR TSM ◆ Sub-objectives	QUALITY MEASURES	GOALS	MEASUREMENT SYSTEM (MIS REPORT)	AGENCY FUNCTION IMPACTED (IRS OR OTHER)
REDUCE TAXPAYER BURDEN ◆ Simplify Filing ◆ Provide Faster Refunds ◆ Improve Taxpayer Svcs - Improve Notices - Improve Inquiry Responses - Improve Phone Svc	Avg days to issue a refund (EFS vs. non-EFS) Number of notices Time to retrieve data at the Service Center	Within five working days (in IRS SBP) Reduce total # of notices by ___% Reduce time by ___% per year	Annual Masterfile extract From MISTLE	Returns Processing (Service Centers) Returns Processing (Service Centers) Returns Processing (Service Centers)
IMPROVE THE QUALITY OF PRODUCTS & SVCS ◆ Improve Notices - Increase clarity of notices - Reduce number of improper notices - Improve the accuracy of notices ◆ Improve Inquiry Responses - Provide faster responses - Increase the clarity of responses - Increase the accuracy of responses ◆ Improve Phone Service - Increase the accuracy of phone responses - Increase the clarity of phone responses	Number of notices Time to retrieve data at the Service Center	Reduce total # of notices by ___% Reduce time by ___% per year	From MISTLE	Returns Processing (Service Centers) Returns Processing (Service Centers)

TSM JOINT BENEFIT STUDY - EFS

OBJECTIVES FOR TSM ◆ Sub-objectives	QUALITY MEASURES	GOALS	MEASUREMENT SYSTEM (MIS REPORT)	AGENCY FUNCTION IMPACTED (IRS OR OTHER)
IMPROVE SYSTEMS EFFICIENCY ◆ Reduce the amount of rework ◆ Reduce the amount of manual activities ◆ Reduce the amount of paper ◆ Reduce the amount of storage needed	Fewer calculation errors Less mail handling/sorting Less transcribing. Eliminate coding/edits Reduce paper forms Storage costs by Service Center	Reduce processing ELF errors to 3-4% Eventually eliminate paper processing	From MISTLE PAS Data in Q Branch	Returns Processing (Service Centers) Returns Processing (Service Centers) Returns Processing (Service Centers)
INCREASE VOLUNTARY COMPLIANCE ◆ Simplify filing ◆ Improve Taxpayer Svc - Improve phone service - Improve inquiry responses - Improve notices ◆ Improve Involuntary Compliance - Increase the number of examinations - Increase the effectiveness of exam - Increase the number of collections - Increase the amount of collections	Time to retrieve data at the Service Center Total number of notices	Reduce time by ___% per year Reduce total number of notices by ___%		Returns Processing (Service Centers) Returns Processing (Service Centers)

TSM JOINT BENEFIT STUDY - EFS

OBJECTIVES FOR TSM ◆ Sub-objectives	QUALITY MEASURES	GOALS	MEASUREMENT SYSTEM (MIS REPORT)	AGENCY FUNCTION IMPACTED (IRS OR OTHER)
<p>REDUCE COST OF TAX ADMINISTRATION</p> <ul style="list-style-type: none"> ◆ Reduce Labor Hours <ul style="list-style-type: none"> - Reduce the amount of rework - Reduce the amount of manual activities ◆ Reduce Case Processing Time <ul style="list-style-type: none"> - Examinations - Collections - Taxpayer Services ◆ Reduce the Amount of Paper ◆ Reduce the Amount of Storage <p>OTHER FEDERAL AGENCY BENEFITS:</p> <ul style="list-style-type: none"> ** Department of Labor Filing of Schedule K-1 on magnetic media 	<p>Automate transcribing Eliminate coding/edits Less mail handling.</p> <p>Faster retrieval of Service Center records</p> <p>Reduce paper forms</p> <p>Reduce Federal Record Center storage</p> <p>Provides better matching capabilities, eliminates re-input of data for Dept. of Labor</p>	<p>Paperless processing</p>	<p>Workload Planning & Control System (WP&C)</p>	<p>Returns Processing Returns Processing</p> <p>Dept. of Labor</p>

CASE STUDY 2: Electronic Deposit Processing System (EDPS)

CASE STUDY 2: Electronic Deposit Processing System (EDPS) - Background to EDPS

The Joint Benefit Group also studied the Electronic Deposit Processing System (EDPS), which is a separate initiative under the TSM Cash Management System (CMS). CMS includes several projects dedicated to redesigning and automating IRS remittance processing activities such as the receipt, processing validation, balancing and posting of all taxpayer payments received by the Service.

The EDPS initiative will allow the processing of electronic remittances by the service centers. IRS has chosen to study and test the processing of electronic remittances starting with business withholding tax remittances, known as Federal Tax Deposits (FTDs), using the EDPS prototype known as TAXLINK. (Eventually, EDPS will explore the feasibility of expanding to include all taxpayer payments and the capability to receive and process payments collected by IRS Field and Collection personnel outside the service center environment.)

The TAXLINK project is a joint effort between two bureaus of the Treasury Department---the Internal Revenue Service and Financial Management Service (FMS). FMS is responsible for the movement of federal funds and the management of the Treasury Tax and Loan banks in the FTD system. IRS is responsible for the collection of tax revenues, classification of these revenues and the proper posting of payments to taxpayer accounts.

Current FTD System

The current FTD system is the Federal Government's largest collection mechanism, both in terms of transaction volumes and dollar flows. Over 14,000 financial institutions receive FTDs. Over 80% of the \$1 trillion collected by IRS each year comes from FTDs.

Federal tax deposit payments are made by employers on a predetermined schedule based on the size of the employer's payroll. Generally, the larger the payroll, the more frequently tax payments are required. IRS regulations require that these taxes be paid directly to a designated financial institution, i.e. a commercial bank, savings and loan association, or credit union--authorized by the Treasury to process FTD payments.

To make the payment, an employer manually prepares a paper FTD coupon with the required data. The employer submits the coupon with the payment to a designated financial institution. At the end of the day, the financial institution totals all tax payments made by employers, prepares a summary Advice of Credit (AOC), and credits Treasury's account at the financial institution. The financial institution forwards one copy of the AOC to the local Federal Reserve Bank (FRB). The FRB processes the AOC and transfers funds from the financial institution's reserve account to the Treasury's account. The financial institution forwards the second AOC and the FTD coupons to the appropriate IRS Service Center for processing.

The IRS Service Center verifies reported amounts by balancing the FTD coupons to the summary AOC and then reconciles the daily AOC totals to the FRB AOC totals. IRS uses the FTD coupon information to classify the payments and update taxpayers tax accounts. At the same time, IRS reports the classification information to Treasury for cash forecasting purposes.

TAXLINK - the New Electronic FTD Process

The current FTD process described above is a paper based, labor intensive system. The EDPS prototype -- TAXLINK, will test the receipt and processing of *electronic payments* through already established commercially accepted financial networks, such as the Automated Clearing House System (ACH) or the Net Settlement System. These established financial networks are already used regularly by most financial institutions.

The Atlanta Service Center (ATSC) is the development site for the TAXLINK prototype, which will test three alternative methods of electronic funds transfer. Each alternative requires the taxpayer to present the payment information to a financial agent. The funds move to Treasury's account, and a summary of the total funds collected is forwarded to FMS and tax related information goes to ATSC.

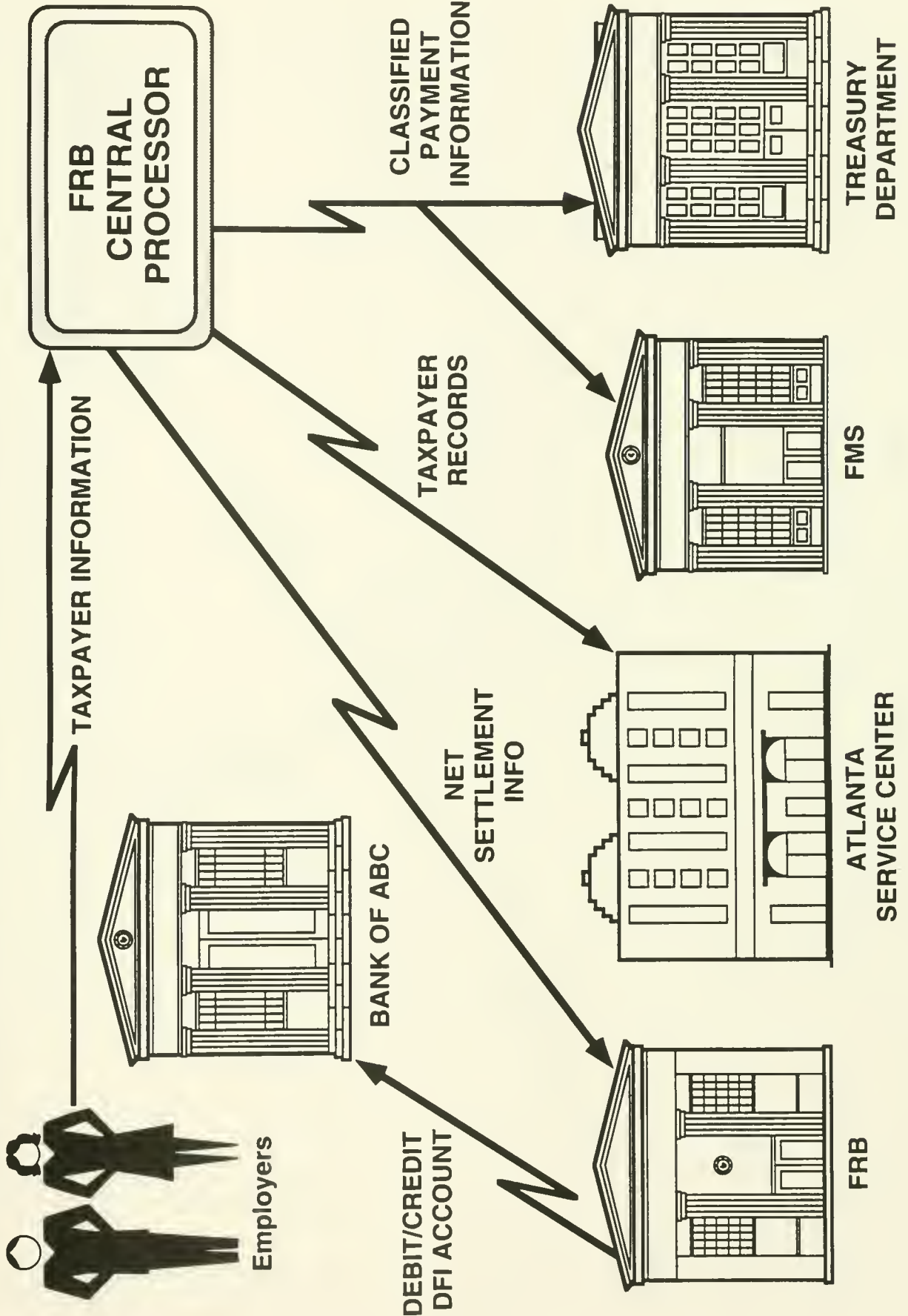
Three Alternatives Under TAXLINK

- Taxpayer transmits tax payment information directly to the Federal Reserve Bank;
- Taxpayer transmits tax payment information to a central processor; or
- Taxpayer transmits tax payment information to a regular commercial bank.

The following pages graphically shows the process of each of these three alternatives.

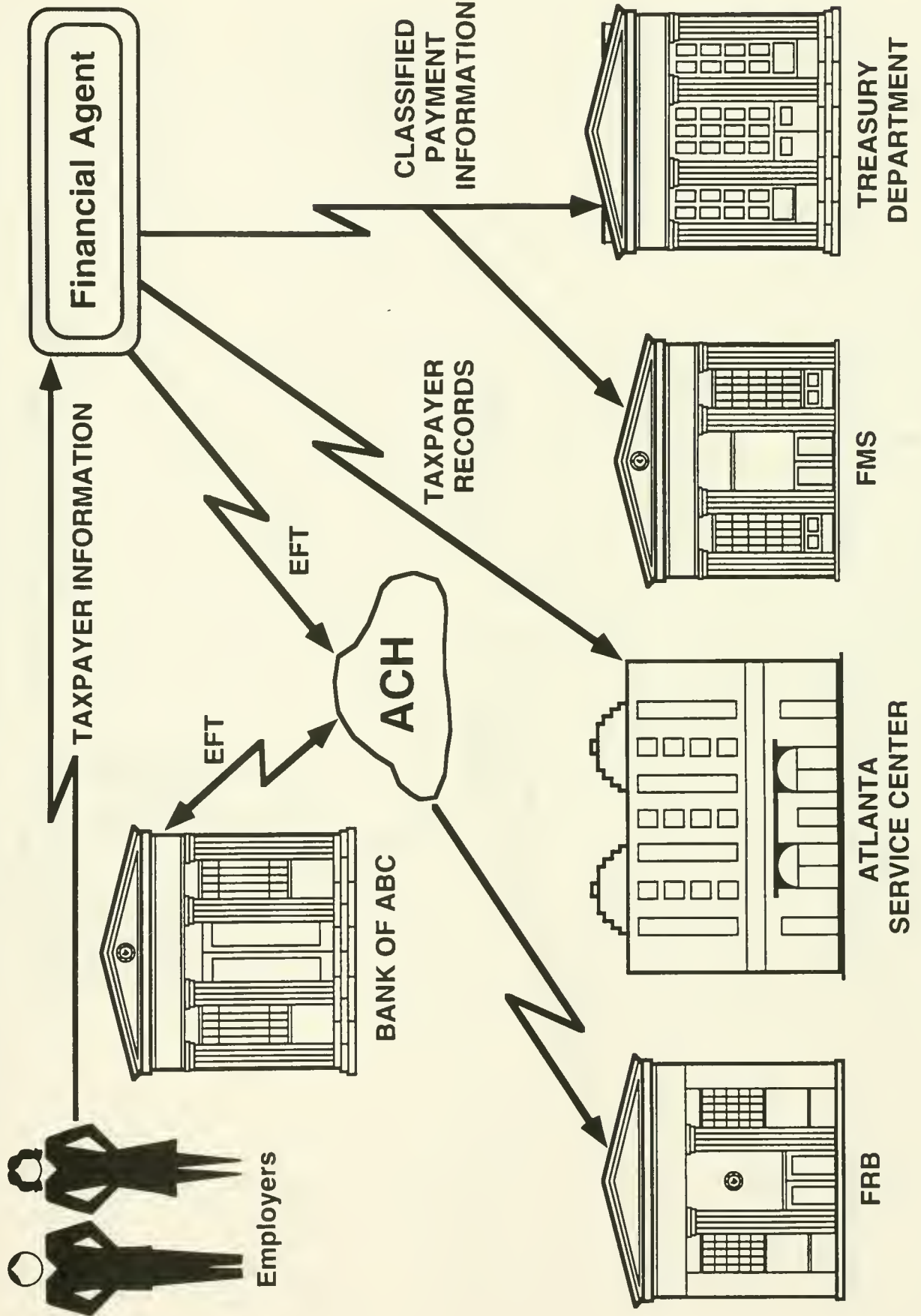
TAXPAYER TRANSMITS TAX PAYMENT INFORMATION DIRECTLY TO THE FEDERAL RESERVE BANK

TAXLINK DATA FLOW - FRB CENTRAL PROCESSOR



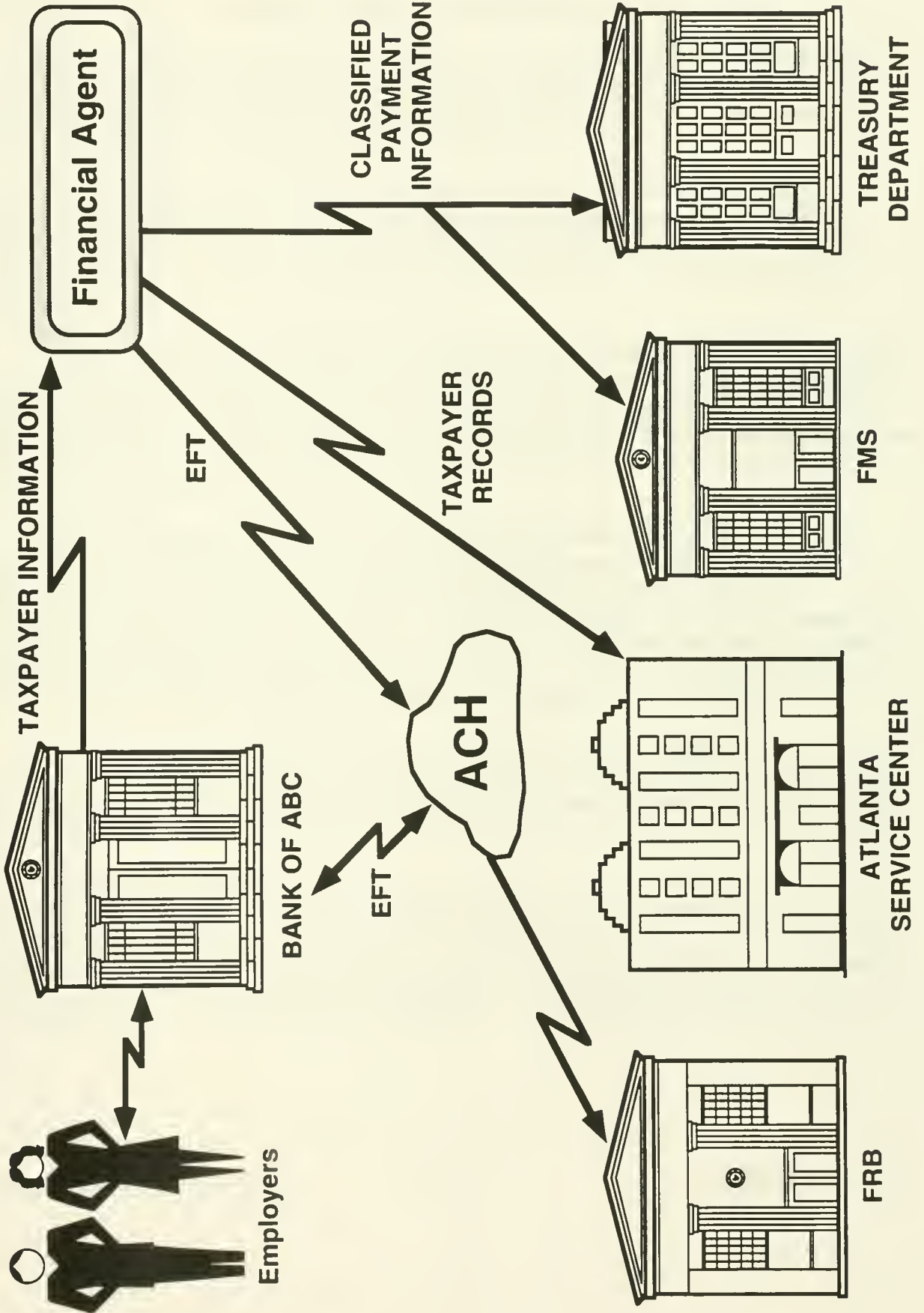
TAXPAYER TRANSMITS TAX PAYMENT INFORMATION TO A CENTRAL PROCESSOR

TAXLINK DATA FLOW - CENTRAL PROCESSOR



TAXPAYER TRANSMITS TAX PAYMENT INFORMATION TO A REGULAR COMMERCIAL BANK

TAXLINK DATA FLOW - CONCENTRATOR



Electronic FTDs: Operational Changes and Benefits

The new electronic transmission of FTDs is designed to improve the tax payment process, the classification process, and the posting process for the Federal Government and the taxpayer. Even though the project is in the early prototype stage, a preliminary study of estimated benefits from the system has been completed by the project office.

The preliminary study estimates the benefits from the full implementation of EDPS. Significantly lower costs are shown due to the reduce need of paper/forms. It is assumed that virtually all paper FTD coupons and AOC will be eliminated under the new electronic system. IRS will no longer be required to contract for the printing of AOC, FTD paper coupon and any reorder forms.

In addition, the IRS postage costs for mailing the coupon booklets to the tax payer would be eliminated. Finally, undelivered coupon books would not have to be researched for re-mailing. Electronic transmission of FTDs would eliminate IRS costs related to the handling, storage and errors associated with processing paper transactions. No longer will the IRS have to bear the cost of handling or storing the paper coupons. Currently, more than 80 million FTD coupons alone, are submitted and processed by the IRS each year.

Human errors associated with the completing of the coupons would be reduced or eliminated, as well. The new electronic FTD process would automatically identify FTDs for necessary correction of the Employer Identification Number (EIN), type of tax and other information when transmitted by the bank or concentrator. The electronic FTDs will automatically be checked against IRS' on-line entity system (OLE) and other verification programs to reduce errors and ensure accuracy. The electronic summary Advice of Credit would automatically equal the total of the FTDs transmitted, so balance verification would no longer be necessary.

The new process also would eliminate the current IRS classification process, as the financial institutions would be responsible for tax payment classification and transmitting the data to FMS and the FRB. The electronic transmission of FTDs will eliminate this time consuming IRS process and expedite receipt of funds, and enhance cash forecasting and investment decisions by Treasury.

Receiving the tax collection information more timely also will facilitate decisions by the Federal Government regarding cash balances for debt issuance. The information flow under the current system requires Treasury to manage its daily cash position on the basis of estimated rather than actual dollar flow. With the huge amount of cash flow managed by the Federal Government, small percentage errors in forecasting and estimating can have large absolute impacts on borrowing costs, interest income, and the overall effectiveness of the Federal Reserve monetary policy.

While the above addresses the anticipated benefits of electronically filed FTDs for IRS and the Federal Government as a whole, there are costs, other than direct costs of the system. Under the current paper-based system, financial institutions have an advantage (Float) with the slow movement of funds through the system to eventual transfer to the Federal Government. With electronically filed FTDs these same financial institutions will lose this float time on funds. However, preliminary results indicate that banks would be driven to participate in the program by their business customers, who prefer the ease of an all electronic system. An all electronic payment system for FTDs is in keeping with the financial community's standard mode of operation in today's world.

Applying the Model to EDPS

TAXLINK was chosen as a focus of this study as a representative immature project; it will be tested beginning in 1992 for the reaction and success of three different institutions (and their transmission methods), each of whom are serving as financial concentrators for the electronically transmission of FTDs from employers to the IRS. The testing of the different options, offers flexibility and options to the test region, facilitates design decisions on the ultimate systems and maximizes financial input for final system design. Identification of the benefits of an immature project - one which is literally still on the drawing board or in early phases of prototyping - necessarily differs from identification, evaluation and quantification of benefits of a project which is already being piloted with real customers. The latter produces operational data (albeit limited in scope) while the former does not. Although the general approach to identification of benefits of immature projects is similar to that of more mature projects, it involves some distinct problems and solutions. This is particularly the case when attempting to apply the Benefits Model framework.

Under the Benefit Model framework, one first must determine why TAXLINK was undertaken. Was it because the Service felt that corporate taxpayers demanded to pay their federal tax in an electronic fashion, and because the Service itself felt it should simply be able to process these deposits and associated information electronically? Or was the project undertaken with a more specific notion of processing efficiencies and cost reduction?

The answer in this case may be a mix of both of these reasons. The portion of TAXLINK which draws on the input test of ADEPT³ was probably due to a recognition of the customer

³ ADEPT (Automated Deposit of Electronic Payments for Taxes) is a research project, which was the first FMS/IRS effort to electronically collect FTDs and balances owed on individual 1040 income taxes using ACH credits. ADEPT is a limited test of system performance and financial institution/taxpayer reaction to and acceptance of an option to electronically transmitting FTD payments to IRS. Preliminary results indicate that the banks were driven to participate in the program by their taxpaying customers (Department of the Treasury, Financial Management Service, "The Fiscal

demand for the electronic FTD option. The internal electronic processing portion which is the guts of TAXLINK seems to have been proposed with the thought that it would significantly increase efficiency and simply make IRS' work easier and presumably less expensive.

While the benefits of the project are clear, the choices of transmitting options and types of financial concentrator have not yet been narrowed down via prototyping. It is unclear to what degree TAXLINK will be accepted by the several groups of customers, and what the full impact of TAXLINK will be on IRS' workflow. While discussions with customers have been held, and work impact has been considered, all consequences are less than concrete given the state of maturity of the project.

The official TAXLINK project team must follow the IRS' Quality Measures Handbook to conduct the initial environmental scan and identify all of the impacts and benefits associated with the project, including a comparative analysis for the three different payment options on goals, benefits, and measures. With a more detailed knowledge of technical progress on the project, the project team will develop specific goals for TAXLINK performance. Broad parameters with clearly identified objectives, sub-objectives, and goals are essential for the justification of all embryonic projects.

In applying the Benefit Model framework described in the narrative above, the Study Group developed a sample list of appropriate quality measures and possible benefits for TAXLINK. They are shown in the following schematic tables.⁴

Scene", September 1991). TAXLINK has taken the ADEPT test several steps further by automating the "internal processing" of the FTDs by the Service, in efforts to eliminate paper transactions and expedite the flow of funds to the U.S. Treasury.

⁴As of this writing, the EDPS project office is currently developing its Quality Measures Plan. Many of the sub-objectives for EDPS mentioned in this report and shown on the schematics are the same, however some modifications have been made by project office when using the new October 1991 Quality Measures Handbook.

TSM JOINT BENEFIT STUDY - SUBGROUP CMS - EDPS

OBJECTIVES FOR TSM ◆ Sub-objectives	QUALITY MEASURES	GOALS	MEASUREMENT SYSTEM (MIS REPORT)	AGENCY FUNCTION IMPACTED (IRS OR OTHER)
REDUCE TAXPAYER BURDEN ◆ Simplify Filing ◆ Improve Taxpayer Svcs - Improve Notices - Improve Inquiry Responses - Improve Phone Svc	Allow alternative method of payment/increase convenience and access to the system Reduce # of erroneous notices On-line remittance data provide immediate on screen validation	5% Phase-in of electronic FTDs in 93, till 90% in 96 Quicker taxpayer data posting Reduce misapplied payment by ___ %	Payment tracer information	Returns Processing (Service Centers) Returns Processing (Service Centers) Returns Processing (Service Centers)
IMPROVE THE QUALITY OF PRODUCTS & SVCS ◆ Improve Notices - Increase clarity of notices - Reduce number of improper notices - Improve the accuracy of notices ◆ Improve Inquiry Responses - Provide faster responses - Increase the clarity of responses - Increase the accuracy of responses ◆ Improve Phone Service - Increase the accuracy of phone responses - Increase the clarity of phone responses	Reduce # of erroneous notices On-line remittance data provide immediate on screen validation	Quicker taxpayer data posting Reduce misapplied payment by ___ %	Payment tracer information	Returns Processing (Service Centers) Returns Processing (Service Centers)

TSM JOINT BENEFIT STUDY - SUBGROUP CMS - EDPS

OBJECTIVES FOR TSM ◆ Sub-objectives	QUALITY MEASURES	GOALS	MEASUREMENT SYSTEM (MIS REPORT)	AGENCY FUNCTION IMPACTED (IRS OR OTHER)
IMPROVE SYSTEMS EFFICIENCY ◆ Reduce the amount of rework ◆ Reduce the amount of manual activities ◆ Reduce the amount of paper ◆ Reduce the amount of storage needed	Fewer repostings of employer data, incorrect classifications, improper transfer of funds and key entry errors Reduce unpostables, rejects and block-out-of-balance inventories Virtually eliminate paper FTD coupons and AOCs Reduce amount of storage required	Reduce printing costs Utilize new storage technologies	ERROR/BOB listings RACs output ERROR/BOB listings RACs output	Returns Processing (Service Centers) Returns Processing (Service Centers) Returns Processing (Service Centers) Returns Processing (Service Centers)
INCREASE VOLUNTARY COMPLIANCE ◆ Simplify filing ◆ Improve Taxpayer Svc - Improve phone service - Improve inquiry responses - Improve notices ◆ Improve Involuntary Compliance - Increase the number of examinations - Increase the effectiveness of exam collections - Increase the number of collections	Allow alternative method of payment/Increase convenience and access to the system Reduce # of erroneous notices On-line remittance data provide immediate on screen validation	5% Phase-in of electronic FTDs in 93, till 90% in 96 Quicker taxpayer data posting Reduce misapplied payment by ___ %	Payment tracer information	Returns Processing (Service Centers) Returns Processing (Service Centers)

TSM JOINT BENEFIT STUDY - SUBGROUP CMS - EDPS

OBJECTIVES FOR TSM ◆ Sub-objectives	QUALITY MEASURES	GOALS	MEASUREMENT SYSTEM (MIS REPORT)	AGENCY FUNCTION IMPACTED (IRS OR OTHER)
<p>REDUCE COST OF TAX ADMINISTRATION</p> <ul style="list-style-type: none"> ◆ Reduce Labor Hours <ul style="list-style-type: none"> - Reduce the amount of rework - Reduce the amount of manual activities ◆ Reduce Case Processing Time <ul style="list-style-type: none"> - Examinations - Collections - Taxpayer Services ◆ Reduce the Amount of Paper ◆ Reduce the Amount of Storage <p>OTHER FEDERAL AGENCY BENEFITS:</p> <p>FINANCIAL MANAGEMENT SERVICE Accelerate 1) availability of funds to Treasury and 2) type/classification of funds</p>	<p>Reduce input errors Reduce the amount of labor hours</p> <p>Virtually eliminate paper FTDs and AOCs. Reduce printing and supply costs.</p> <p>Reduce amount of storage needed</p> <p>Increase the deposit timeliness and accuracy of cash forecasting</p>	<p>Reduce by 50% input errors Manual correction processes eliminated</p> <p>Reduce supply costs by 50% in 96</p> <p>Reduce cost of storage, utilizing new storage technologies</p> <p>\$44M interest savings from eliminating 1 day of float in 94 and upto \$200M in 96</p>	<p>Electronic audit trail</p>	<p>Returns Processing (Service Centers)</p> <p>Returns Processing (Service Centers)</p> <p>Returns Processing (Service Centers)</p> <p>Financial Mgmt Svc</p>

Study of Tax Systems Modernization Benefits

Conclusion

As was stated in the beginning, this joint study was undertaken as a result of concerns by OMB and Treasury executives regarding benefits analyses of IRS' Tax Systems Modernization Initiatives. Benefits estimation is extremely complicated but recognized as a necessary task.

TSM is the largest modernization project undertaken by a civilian agency, and represents uncharted territory for Service officials. There is no guidebook on "how to" project or estimate savings; for each project has different idiosyncracies. Many benefits are not easily quantified and estimates made early in a project's development can quickly become dated. TSM projects that are already significantly underway, such as EFS, were not designed with management information systems reports to continuously track savings. These projects are having to "retro-fit" the benefit methodology onto their system, without good baseline data for comparison.

As TSM projects increasingly move from the planning stage to implementation, project managers and functions impacted by TSM, are being held accountable for realizing TSM benefits. This is forcing a significant change in the management culture of the IRS, which is quickly being required to improve the budget and information systems justification processes -- improvements which are generally agreed to be good and necessary, but are causing some growing pains. This Study has re-awakened IRS executives and TSM project officials to the continued importance of the benefit estimation process.

Although this study articulates some principles for identifying and measuring the benefits of TSM projects, it is not intended to provide fixed formulas for deriving benefits. This would be an impossible task, since each project has unique functionality. The Joint Benefits study group believes that the systematic use of an agreed-upon framework for the identification and analysis of benefits should help simplify this process. Individual projects, as well as information systems planning as a whole, should proceed more smoothly, encountering less resistance internally, and most importantly, should meet the needs of the IRS and oversight agencies.

DEFINITION GLOSSARY

- ACH** **Automated Clearing House** - allows for the movement of electronic payments through financial network, which any financial institution can be connected.
- ADEPT** **Auto Deposit of Electronic Payment Transmission** - provides for the receipt of electronic tax payment information. ADEPT is a front end processor only, it formats the information for further processing through the existing system.
- AUR** **Automated Underreporter** - will automate the analysis and processing of underreporter cases by electronically matching income and deductions documents from third parties against taxpayer returns.
- CFOL** **Corporate Files On-line** - (first phase was OLE) will provide IRS with instant access to tax account data currently stored on paper or magnetic tape in Martinsburg, West Virginia computing center.
- CMS** **Cash Management System** - is an umbrella project that covers several sub-projects. CMS includes Check Handling Enhancements and Expert System (CHEXS), Electronic Deposit Processing System (EDPS), TAXLINK prototype and the District Office remittance processing initiatives.
- EDPS** **Electronic Deposit Processing System** - provides for the receipt, validation and posting of electronic payment information.
- EFS** **Electronic Filing System** - same as ELF, used as outside IRS acronym. ELF is considered the "nickname."
- EIN** **Employee Identification Number** - similar to an individual's social security number, but for a business entity.
- MISTLE** **Management Information System for Top Level Executives** - is a menu driven executive database of filing information from the seven Service Centers.
- OLE** **On-line Entity Project** - is the first CFOL project, is faster, easier way for IRS case workers to verify taxpayer entity info - address, name and ID #s.
- PAS** **Program Analysis System** - Service Center program which looks at a statistically valid sample of work in process to identify who, what, and where errors are being made.

- SCSS** **Service Center Support System** - Modernization procurement projects of the acquisition of replacing existing Service Center mainframe computer systems.
- TAXLINK** **TAXLINK** is a prototype which will test electronic funds transfer technology for tax payments. Phase I of TAXLINK is the modernization of IRS's internal processing. Phase II is the receipt of tax payment information.
- TSM** **Tax Systems Modernization** - vehicle which will allow IRS to dramatically reduce the burden on taxpayers, enhance voluntary compliance with our tax laws, and generate quality driven productivity gains throughout the IRS.

ABBREVIATION GLOSSARY

- AOC** **Advice of Credit**
- CIDS** **Centralized Inventory Distribution Sites**
- FMS** **Financial Management Service**
- FRB** **Federal Reserve Bank**
- FTD** **Federal Tax Deposit**
- FTE** **Full-time Equivalent**
- ISD** **Information Systems Division**
- ISPB** **Information Systems Policy Board**
- RP** **Returns Processing**

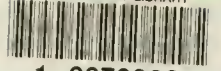
Appendix 1

TAX SYSTEMS MODERNIZATION QUALITY MEASURES

OBJECTIVES and SUB-OBJECTIVES

REDUCE TAXPAYER BURDEN	IMPROVE QUALITY OF PRODUCTS AND SERVICES	IMPROVE SYSTEMS EFFICIENCY	INCREASE VOLUNTARY COMPLIANCE	REDUCE THE COST OF TAX ADMINISTRATION
<ul style="list-style-type: none"> ◆ <i>Simplify Filing</i> ◆ <i>Provide Faster Refunds</i> ◆ <i>Improve Taxpayer Svcs</i> - Improve Notices - Improve Inquiry Responses - Improve Phone Svcs 	<ul style="list-style-type: none"> ◆ <i>Provide Faster Refunds</i> ◆ <i>Improve Notices</i> - Increase clarity of notices - Reduce the # of improper notices - Improve accuracy of notices ◆ <i>Improve Inquiry Responses</i> - Provide faster responses - Increase clarity of responses - Increase accuracy of responses ◆ <i>Improve Phone Service</i> 	<ul style="list-style-type: none"> ◆ <i>Reduce the Amount of Rework</i> ◆ <i>Reduce the Amount of Manual Activities</i> ◆ <i>Reduce the Amount of Paper</i> ◆ <i>Reduce the Amount of Storage Needed</i> ◆ <i>Increase Employee Satisfaction</i> - Clerical level - Analyst level - Management level 	<ul style="list-style-type: none"> ◆ <i>Simplify Filing</i> ◆ <i>Improve Taxpayer Svc</i> - Provide faster refunds - Improve phone svc - Improve inquiry responses - Improve notices ◆ <i>Improve Involuntary Compliance</i> - Increase # of examinations - Increase the effectiveness of examinations - Increase # of collections - Increase the amount of collections 	<ul style="list-style-type: none"> ◆ <i>Reduce Labor Hours</i> - Reduce the amount of rework - Reduce the amount of manual activities ◆ <i>Reduce the Case Processing Time</i> - Examinations - Collections - Taxpayer Services ◆ <i>Reduce the Amount of Paper</i> ◆ <i>Reduce the Amount of Storage Needed</i>

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